

Claims

[1]

A casting nozzle for supplying molten alloy liquid from a tundish to a movable mold for continuous casting, the casting nozzle being fixed to the tundish for storing the molten liquid of aluminum alloy or magnesium alloy, wherein a casting nozzle tip arranged on the movable mold side has a heat-conductive layer made of a material having a heat conductivity equal to or more than 0.2 W/mK.

[2]

A casting nozzle for supplying molten alloy liquid from a tundish to a movable mold for continuous casting, the casting nozzle being fixed to the tundish for storing the molten liquid of aluminum alloy or magnesium alloy, wherein a casting nozzle tip arranged on the movable mold side has a high strength elastic layer made of a material having an elastic modulus of 5000 MPa or more and a tensile strength of 10 MP or more.

[3]

A casting nozzle according to claim 1 or 2, wherein the casting nozzle tip arranged on the movable mold side has a high density layer made of a material having a bulk density of 0.7 g/cm³ or more.

[4]

A casting nozzle according to claim 1, wherein the casting nozzle tip arranged on the movable mold side has a high strength layer made of a material having a tensile strength equal to or more than 10 MPa.

[5]

A casting nozzle according to claim 1, wherein the casting nozzle tip arranged on the movable mold side has a highly elastic layer made of a material having an elastic modulus equal to or more than 5000 MPa.

5 [6]

A casting nozzle according to claim 2, wherein the casting nozzle tip arranged on the movable mold side has a highly heat-conductive layer made of a material having a heat conductivity equal to or more than 0.2 W/mK.

[7]

10 A casting nozzle according to claim 1 or 2, wherein the casting nozzle tip arranged on the movable mold side has a thickness of 3.0 mm or less.

[8]

A casting nozzle according to claim 1, wherein the highly heat-conductive layer is made of a carbon-containing material, including a material made of carbon.

15 [9]

A casting nozzle according to any one of claims 1 to 8, wherein the casting nozzle tip arranged on the movable mold side has a multilayer structure including a plurality of layers made of different materials.

20 [10]

A method of manufacturing a cast alloy of aluminum alloy or magnesium alloy by continuous casting using a casting nozzle set forth in claim 1.

[11]

A method of manufacturing a cast alloy of aluminum alloy or magnesium alloy by continuous casting using a casting nozzle set forth in claim 2.

[12]

5 A method of manufacturing a cast alloy according to claim 11, wherein an interstice between the movable mold and the tip of the outer peripheral edge of the casting nozzle is equal to or less than 0.8 mm.

[13]

10 A method of manufacturing a cast alloy according to any one of claims 10 to 12, wherein the movable mold is made of one pair of rolls arranged at mutually opposing position so as to turn in mutually opposite direction.

[14]

A cast alloy produced by a manufacturing method set for the any one of claims 10 to 13.